

# 赫刺螨属 (*Hirstionyssus* Fonseca, 1948) 三个新种记述 (Acarina: Macronyssidae)

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赫刺螨属 (*Hirstionyssus*) 是一类寄生性的蚊虬。1948 年 Fonseca 建立该属, 以 *Hirstionyssus arcuatus* (Koch, 1839) 作为属模, 其特征为: 雌螨背板不分裂, 后部急剧地向末端渐细; 胸板有 3 对刚毛及 2 对裂缝形小孔; 生殖腹板后端圆钝; 足的基节除基节 II 一个背刺外, 尚有腹面的刺; 胫节 I、II 缩短; 雄螨全腹板整一, 在基节 IV 之后不扩张。至今, 应归隶于该属的种类共计有 54 个种和亚种。

在我国关于该属的种类, 过去报告过的只有三种: 1921 年 Hirst 曾记述在山西采到的一个新种 *Hirstionyssus confucianus* (Hirst, 1921); 1961 年 Брегетова 及 Гроховская 报导在云南 (及越南) 采到两个新种 *Hirstionyssus callosciuri* Breg. & Grokh., 1961 及 *H. indosinensis* Breg. & Grokh., 1961。本文根据 1961 年在四川采得的材料记述三个新种。至此, 赫刺螨属已知的种类总共有 57 个种和亚种, 而在我国已记录的共计 6 种。

## 新 种 记 述

### 鼯鼠赫刺螨 *Hirstionyssus trogopteri* (新种) 雌螨 (图 1—4)

体椭圆形, 在足的基节 IV 外侧略微内凹; 体长 0.49 (不包括颚体), 宽 0.32 毫米。

背板较小, 窄长形, 复盖背面约  $2/3$ ; 长宽为  $0.39 \times 0.19$  毫米; 前缘宽圆而钝, 两侧缘粗略平直, 后侧缘向后逐渐窄小, 末端圆钝。背板刚毛共 26 对; 前方及边缘的刚毛较中部的稍长, 但  $F_1$  显著细短。背面表皮皱纹明显, 上有刚毛 18 对, 一般比背板上刚毛稍长。

胸板略呈六角形, 宽度约为长度的 2 倍; 前缘略微凸出, 但中部向内微凹, 故呈现为双波形; 前侧缘向外斜伸, 其前段略微内凹; 后侧缘向内斜伸, 与后缘连接成钝圆角; 后缘略微内凹。三对胸板刚毛位在边缘, 长度约略相等; 胸板上两对裂缝形小孔极不明显。胸前叉 (tritosternum) 几丁化弱, 不甚明显。在胸前叉与胸板之间, 有明显的网状条纹。生殖腹板短舌形, 两侧缘前段较为平直, 自生殖腹板刚毛以后逐渐收窄, 后端圆钝。肛板呈倒梨形, 长 85.8 微米, 宽 59.1 微米; 与生殖腹板之距离约为肛孔之长的 1.8 倍; 肛板前方一对刚毛位在肛孔中部靠上的水平, 其长度略短于肛孔之长, 后方一根毛与肛孔之长约略相等; 肛板末端细窄, 上面有稠密的小齿。腹面表皮皱纹明显; 在基节 IV 之后有刚毛 13 对, 其中一对靠近生殖腹板末端的侧缘。气孔位在基节 III 与基节 IV 之间的水平, 气孔片较短, 呈微波状弯曲, 前端约达基节 II 的后缘。

足 I 较其它对足长而稍粗壮。基节刺式为: 0-4-2-1。基节 I 无刺, 有两根正常刚毛。基节 II 背面前缘的刺正常, 后缘外角明显突出; 腹面前缘的刺强大, 向后弯曲呈勾状,

后方两个刺靠外的较小,其内侧有基节刚毛一根。基节 III 的两个刺接近后缘;靠外的刺较小,其内侧有刚毛一根;在基节前缘有镰刀状粗大刚毛一根。基节 IV 的一个刺较其它基节的刺细小;基节刚毛一根,常形。跗节 II 亚末端的腹面有粗短的刺状刚毛一对,在靠内的一根的后方,有两根基部宽末端细的刚毛。

正模 ♀, 1961 年 5 月 11 日采于四川马尔康;宿主为高山鼯鼠 (*Troglodytes xanthipes* Milne-Edwards)。模存中国科学院动物研究所。

副模 3 ♀♀, 采自与正模同一宿主个体上。模存中国科学院动物研究所。

本新种与 *Hirstionyssus liberiensis* (Hirst) 较为近似,明显的区别是后者的足 II 较其它对足粗壮,跗节 II 末端的刺特长而粗壮;此外,从胸板的形状和长宽比例亦可以区别。

### 中华赫刺螨 *Hirstionyssus sinicus* (新种) 雌螨 (图 5—8)

体长椭圆形;两侧缘近乎平直,前侧缘呈漫波状微凸,后侧缘逐渐细窄,末端圆钝。体长 0.57 毫米(不包括颚体),宽 0.34 毫米。

背板宽大,几乎复盖全部背面;形状与体形相似,但两侧的中部略微内凹;表面上有细网状纹,但中部不甚明显。背板刚毛共 24 对,前方及边缘的刚毛长大 ( $F_1$  除外),但中部的 ( $D_{1-7}$ ) 较为细短;在前端  $F_3$  外侧有一对裂缝状小孔。背面两侧缘的表皮有刚毛 5 对。

胸板前缘略微凸出,前侧角突起成刺状;后缘呈弧形内凹,其中部凹底接近达到第二对胸板刚毛 ( $St_2$ ) 的水平线。胸板刚毛三对,长度约略相等 (44.1 微米);两对裂缝形小孔明显。胸板与胸前叉 (tritosternum) 之间有网状纹。生殖腹板长舌形;两侧缘在该板的刚毛下方稍微凸出;后端宽圆而钝。肛板与生殖腹板的距离小于肛孔之长。肛板宽卵圆形,长 106.7 微米,宽 80.1 微米;两侧缘后半部略向内斜伸,后端较为平钝;肛板前一对刚毛位于肛孔下半部的两侧,其长度略短于肛孔之长;后方一根刚毛较长,其位置与后缘距离约为肛孔长度之半;末端的小齿细密。腹面表皮皱纹不甚明显;在基节 IV 之后有刚毛约 30—32 对,大部分刚毛较长,靠近边缘的略为细短。气门位于基节 III 与基节 IV 之间的水平;气门片长,延伸至基节 I 的前半部;气门付片 (peritremalia) 向后延伸,沿着基节 IV 的后缘而达内缘的中部。

足 I、II 较足 III、IV 稍粗而长。基节刺式为: 0-2-2-1。基节 II 两个刺大小约相等;基节 III 内侧的刺比外侧的显著增大;基节 IV 的刺比其它基节的刺小;各基节上的刚毛常形。跗节 II 亚末端的腹面有粗短的刺状刚毛一对,其后方有三根常形的刚毛。

正模 ♀, 1961 年 6 月采于四川马尔康;宿主为社鼠 (*Rattus niviventer confucianus* Milne-Edwards)。模存中国科学院动物研究所。

副模 9 ♀♀, 1961 年 6—7 月采于四川马尔康及壤塘;宿主为白腹鼠 (*Rattus coxingi andersoni* Thomas) 及大耳林姬鼠 (*Apodemus flavicolis latronum* Thomas)。模存中国科学院动物研究所。

本新种与 *Hirstionyssus carnifex* (Koch) 及 *H. talpae* Zemskaja 较为相似。*H. carnifex* (Koch) 与本种的主要区别为: (1) 背板上有刚毛 26 对,大部分刚毛细短; (2) 胸板后缘近乎平直; (3) 肛板后端较为细窄; (4) 基节 II 腹面的刺较小。*H. talpae* Zem. 与本种的不同,在于: (1) 背板后半部较前半部宽;背板大部分刚毛细短; (2) 胸板后缘的凹度较深; (3) 肛板与生殖腹板的距离大于肛孔之长; (4) 肛板后端较为细窄。

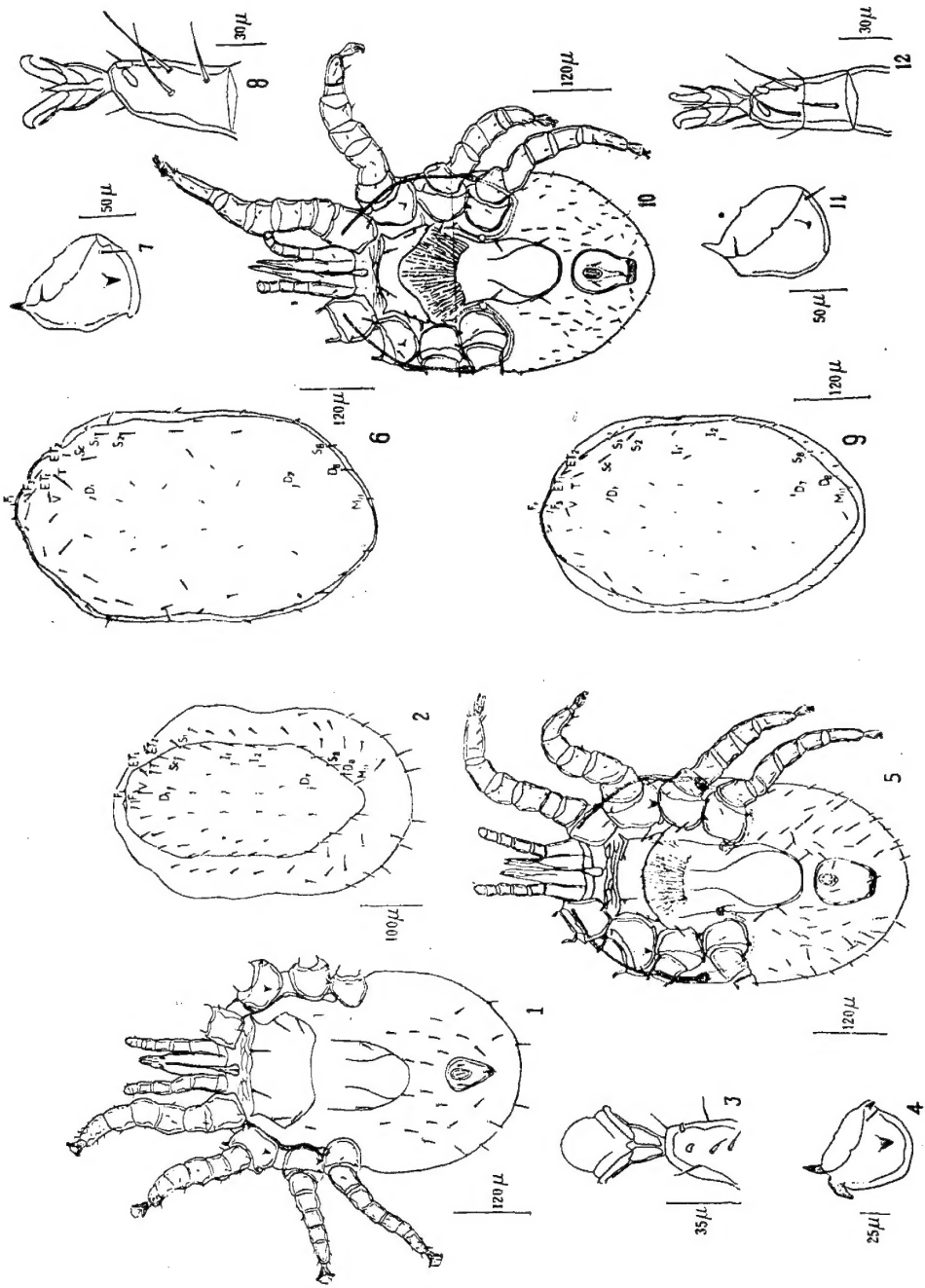


图 1—4 鼯鼠赫刺螨 *Hirstionyssus tragopteri* sp. nov. ♀: 1 腹面观 2 背面观 3 跗节 II 4 基节 II  
图 5—8 中华赫刺螨 *Hirstionyssus sinicus* sp. nov. ♀: 5 腹面观 6 背面观 7 基节 II 8 跗节 II  
图 9—12 *H. neosinicus* sp. nov. 新华赫刺螨 ♀: 9 背面观 10 腹面观 11 基节 II 12 跗节 II

# 新华赫刺螨 *Hirstionyssus neosinicus* (新种) 雌螨(图 9—12)

体长椭圆形;长 0.51 毫米(不包括颚体),宽 0.31 毫米。

背板宽大,复盖身体背面极大部分,形状与体形相似;靠近前缘及两侧缘有不明显的细网状纹。背板刚毛共 26 对,在前侧缘的刚毛长大,其余的都较短。在前端  $F_3$  外侧有一对裂缝形小孔。背面两侧缘的表皮有刚毛 8 对。

胸前叉(tritosternum)与胸板之间有不甚明显的网状纹。胸板略似鞍形;前缘稍微凸出,前侧角突起成刺状;两侧缘直而向外斜伸;后缘强度凹陷,其中部凹底稍微超过第二对胸板刚毛( $St_2$ )的水平线,两侧的弧度略微凸出。胸板刚毛 3 对,长度约略相等(31.4 微米);两对裂缝形小孔明显。生殖腹板后缘圆钝;两侧缘在该板刚毛下方中度凸出;与肛板的距离约等于肛孔的长度。肛板长 92.8 微米,宽 65.1 微米;前部较圆,后端平钝,后侧缘略微内凹;肛板前一对刚毛位于肛孔中部的水平线,其长度略小于肛孔之长;后方一根刚毛与肛孔长约略相等,位于肛板后侧缘内凹的水平线;末端有 4—6 列小齿。腹面表皮皱纹细密;在基节 IV 之后有刚毛约 32—34 对,在肛板末端外侧的一对最为粗壮。气孔位于基节 III 与基节 IV 之间的水平;气孔片延伸至基节 I 的前半部;气孔付片(peritremalia)向后延伸,绕过基节 IV 后缘而延至基节 III 的内缘。

足 I、II 较足 III、IV 稍粗而长。基节刺式为: 0-2-2-1。基节 II 背面前缘的刺较长,腹面中部靠后的刺较短;基节 III 的两刺位在后缘,靠内侧的略较长;基节 IV 后缘的刺较为尖细。各基节上的刚毛正常。跗节 II 亚末端的腹面有一对粗短的刺状刚毛,其后方有三根常形的刚毛。

正模 ♀, 1961 年 7 月采于四川壤塘;宿主为白腹鼠(*Rattus coxingi andersoni* Thomas)。模存中国科学院动物研究所。

副模 11 ♀♀, 1961 年 5—8 月采于四川马尔康及壤塘;宿主为大耳林姬鼠(*Apodemus flavicollis latronum* Thomas)及社鼠(*Rattus niviventer confucianus* Milne-Edwards), 模存中国科学院动物研究所。

本新种与中华赫刺螨 *Hirstionyssus sinicus* sp. nov. 近似,主要不同:(1)背板上刚毛 26 对;(2)胸板后缘凹度较大;(3)肛板后侧缘略微内凹;(4)基节 II 腹面的刺显著较短。

## 参 考 文 献

- Брегетова, Н. Г.: 1956. Гамазовые клещи (Gamasoidea). Опред. по фауне СССР, Изд. АН. СССР, М.—Л. 61: 165—97.
- Брегетова, Н. Г. и И. М. Гроховская: 1961. Новый род и новые виды гамазовых клещей из Северного Вьетнама и Южного Китая. *Энтомол. обозр.* 40 (1): 225—32.
- Fonseca, F. D.: 1948. A monograph of the genera and species of Macronyssidae Oudemans, 1936 (synom.: Liponissidae Vitzthum, 1931) (Acari). *Proc. Zool. Soc. Lond.* 118:249—334.
- Hirst, S.: 1912. On two new parasitic Acari of the genus *Leiognathus* Cn. (Gamasidae). *B. Ent. Res.* 3:369—72.
- Hirst, S.: 1921. On some new or little-known Acari, mostly parasitic in habit. *Proc. Zool. Soc. Lond.* 1921:357—78.
- Jameson, E. W. Jr.: 1950. Notes on mites of the genus *Neoichoronyssus*, with the description of a new subgenus and three new species of the subgenus *Hirstionyssus*. *Proc. Ent. Soc. Wash.* 52(4):161—72.
- Strandtmann, R. W. & H. B. Morlan: 1953. A new species of *Hirstionyssus* and a key to the known species of the world. *Tex. Rpts. Biol. Med.* 11:627—37.

## ON THREE NEW SPECIES OF THE GENUS *HIRSTIONYSSUS* FONSECA, 1948 (ACARINA: MACRONYSSIDAE)

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In the present paper, three new species of the genus *Hirstionyssus* are described and figured.

### ***Hirstionyssus trogopteri* sp. nov.** Female (figs. 1—4)

Body oval, slightly constricted near coxa IV; length (exclusive of gnathosoma) 0.49 mm, width 0.32 mm.

Dorsal plate rather elongated, about two-thirds as wide as dorsum; 0.39 mm long, 0.19 mm wide; anterior margin broadly rounded; lateral margins roughly straight; postero-lateral margins narrowed posteriorly to a rounded tip; with 26 pairs of setae, of which anterior and marginal ones (exclusive of  $F_1$ ) longer than those on median portion. Unsclerotized portion of dorsum distinctly striated, with 18 pairs of setae.

Sternal plate somewhat hexagonal, about twice as wide as long; anterior margin slightly convex and sinuous; posterior margin very slightly concave; 3 pairs of subequal setae situated on margins of the plate; usual 2 pairs of slit-like pores indistinct. Genitoventral plate rather short and tongue-like, narrowed posteriorly below paired setae to a broadly rounded tip. Distance between genitoventral and anal plates about 1.8 times as the length of anus. Anal plate pyriform; paired setae situated slightly before middle of anus; with cribrum posterior to postanal seta which slightly longer than paired setae. Unsclerotized portion of venter striated; posterior to coxa IV with 13 pairs of setae. Stigma situated at a level between coxae III and IV; peritreme sinuous, extending to posterior margin of coxa II.

Leg I longer and slightly stouter than the others. Coxae with spurs as: 0-4-2-1; anterior spur on ventral surface of coxa II largest, claw-like in shape. Tarsus II with a pair of claw-like modified setae subapically.

Holotype: ♀, collected from *Trogopterus xanthipes xanthipes* Milne-Edwards in May 1961 from Szechuan Province, China, deposited in the Institute of Zoology, Academia Sinica, Peking.

Paratypes: 3 ♀♀, collected from the same animal host of holotype, deposited in the said Institute.

### ***Hirstionyssus sinicus* sp. nov.** Female (figs. 5—8)

Body oblong, 0.57 mm long (exclusive of gnathosoma), 0.34 mm wide.

Dorsal plate faintly reticulated, covering almost all of dorsum; antero-lateral margins sinuous; lateral margins slightly concave medially; postero-lateral margins narrowed posteriorly to a broadly rounded tip; with 24 pairs of setae, of which anterior and marginal ones (exclusive of  $F_1$ ) longer and stouter than those on median portion; with a pair of slit-like pores near anterior tip. Unsclerotized portion of dorsum with 5 pairs of setae.

Sternal plate slightly convex on anterior margin; moderately concave on posterior margin; with 3 pairs of subequal setae and usual 2 pairs of pores. Genitoventral plate

rather long; very slightly expanded below genitoventral pair of setae; posterior tip very broadly rounded. Distance between genitoventral and anal plates smaller than length of anus. Anal plate broadly oval, but truncated at posterior tip; paired setae situated slightly behind middle of anus; postanal seta longer than paired setae, situated near posterior margin of the plate at a distance equal to  $\frac{1}{2}$  of the length of anus. Unsclerotized portion of venter faintly striated; with about 30—32 pairs of setae posterior to coxa IV. Stigma at a level between coxae III and IV; peritreme extending before middle of coxa I; peritremalia extending posteriorly to inner margin of coxa IV.

Legs I and II longer and slightly stouter than legs III and IV. Coxae with spurs as: 0-2-2-1; coxal setae normal. Tarsus II with a pair of claw-like modified setae subapically.

Holotype: ♀, collected from *Rattus niviventer confucianus* Milne-Edwards in June 1961 from Szechuan Province, China, deposited in the Institute of Zoology, Academia Sinica, Peking.

Paratypes: 9 ♀♀, collected from *Rattus coxingi andersoni* Thomas and *Apodemus flavicolis latronum* Thomas in June and July 1961 from Szechuan Province, China, deposited in the said Institute.

***Hirstionyssus neosinicus* sp. nov.** Female (figs. 9—12)

Body oblong, 0.51 mm long (exclusive of gnathosoma), 0.31 mm wide.

Dorsal plate covering most of dorsum, with the same shape as the latter; very faintly reticulated near anterior and lateral margins; with 26 pairs of setae, those on antero-lateral margins longer and stouter than the others; with a pair of slit-like pores near anterior tip. Unsclerotized portion of dorsum with 8 pairs of setae.

Sternal plate slightly convex on anterior margin; concavity of posterior margin extending slightly beyond the level of second pair of sternal setae, with its lateral sides very slightly convex; 3 pairs of sternal setae subequal; 2 pairs of slit-like pores distinct. Genitoventral plate broadly rounded posteriorly, moderately expanded below genitoventral pair of setae. Anal plate separated from genitoventral plate by a distance about equal to the length of anus; anterior half rounded; postero-lateral margins slightly concave; posterior tip truncated; paired setae situated beside middle of anus; postanal seta opposite the concavity of postero-lateral margins of the plate; cribrum with 4—6 rows of teeth. Unsclerotized portion of venter finely striated; with about 32—34 pairs of setae posterior to coxa IV. Stigma at a level between coxae III and IV; peritreme extending before middle of coxa I; peritremalia extending posteriorly around coxa IV and to inner margin of coxa III.

Legs I and II longer and slightly stouter than legs III and IV. Coxae with spurs as: 0-2-2-1; the spur on ventral side of coxa II small. Tarsus II with a pair of claw-like modified setae subapically.

Holotype: ♀, collected from *Rattus coxingi andersoni* Thomas in July 1961 from Szechuan Province, China, deposited in the Institute of Zoology, Academia Sinica, Peking.

Paratypes: 11 ♀♀, collected from *Apodemus flavicolis latronum* Thomas and *Rattus niviventer confucianus* Milne-Edwards from May to August 1961 from Szechuan Province, China, deposited in the said Institute.